

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1 and 3-36 were pending. Claims 1 and 3-36 were rejected.

Claims 1, 3, 9, 11, 15, 23, 25-27, 34-36 have been amended. No claims have been canceled. No claims have been added. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendments do not add new matter.

Claim Objections

Claims 3 and 9 are objected to under 37 C.F.R. 1.75 (c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicants have amended claims 3 and 9 to overcome the Examiner's objection.

Rejections Under 35 U.S.C. § 112

Claims 1, 3-14 and 20-34 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 1 has been amended to overcome the Examiner's rejection.

Therefore, Applicants respectfully submit that claims 1 and its dependent claims 3-14 and 20-22 are patentable under 35 U.S.C. § 112, second paragraph.

Claim 23 has been amended to overcome the Examiner's rejection.

Therefore, Applicants respectfully submit that claims 23 and its dependent claims 24-34 are patentable under 35 U.S.C. § 112, second paragraph.

Rejections Under 35 U.S.C. § 102

Claims 1, 3, 8-11, 13-15, 18 and 19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,704,879 to Parrish ("Parrish").

The Examiner stated that

In the remarks, Applicants argued that Parrish fails to teach, disclose, or suggest a limitation of "adjusting a voltage level of a graphics controller power supply in response to a change in a system power supply".There is no claim language directed to the above limitation in claim 1. Also, Parrish inherently teaches of adjusting a voltage level of graphics controller power supply in response to a change in a system power supply [col.2, lines 27-45, 60-65; col. 3, lines 16-18]. Such as, it is also well known in the computer art, it is advantageous from a power savings perspective to reduce voltage when possible because the power saved is proportional to the square of the voltage reduction, whereas the power savings is linear with respect to the frequency reduction. In order to avoid the possible unpredictable results, the voltage should not be adjusted downward until the clock speed has been reduced, and the clock speed should not be adjusted upward until the voltage has been increased. Therefore, the voltage level is adjusted according to changing of frequency.

(Office Action, 10/13/05, p. 8, items 14-15)

Applicants respectfully disagree. Applicants have amended claim 1 to include adjusting through a voltage regulator, a graphics controller power supply voltage level in response to the receiving the change indication related to the system power supply.

Parrish discloses a graphics adapter 110 that contains an oscillator 118 (Figure 1, col. 2, lines 20-25). More specifically, Parrish discloses modifying a frequency of the oscillator to respond to the change in the power supply (col. 2, lines 25-col. 3, line 18).

Thus, Parrish merely discloses that to respond to the change in the power supply a frequency of the oscillator is modified, in contrast to adjusting a graphics controller power supply voltage level, as recited in amended claim 1. Additionally, Parrish does not disclose adjusting through a voltage regulator a graphics controller power supply voltage level in response to receiving the change indication related to the system power supply, as recited in amended claim 1.

Because Parrish fails to disclose all limitations of amended claim 1, Applicants respectfully submit that amended claim 1 is not anticipated under 35 U.S.C. § 102(e) by Parrish.

Because amended claim 15 includes at least discussed limitations of amended claim 1, Applicants respectfully submit that amended claim 15 is likewise not anticipated under 35 U.S.C. § 102(e) by Parrish.

Given that claims 3, 8-11, 13-14, and 18-19 depend from amended claims 1 and 15 respectively, it is respectfully submitted that claims 3, 8-11, 13-14, and 18-19 are likewise not anticipated under 35 U.S.C. § 102(e) by Parrish.

Rejections Under 35 U.S.C. § 103

Claims 4, 5 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Parrish in view of U.S. Patent No. 5,349,525 to Dunki-Jacobs, et al. ("Jacobs"). Claims 23-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parrish, in view of Powell, Jacobs, and Suboh.

As set forth above, Parrish fails to disclose, teach, or suggest adjusting a power supply voltage level supplied to the graphics controller in response to the receiving the indication the power reduction in the graphics controller, as recited in amended claim 1. Additionally, Parrish fails to disclose, teach, or suggest adjusting through a voltage regulator a power supply voltage level supplied to the graphics controller in response to receiving the change indication related to the system power supply, as recited in amended claim 1.

Jacobs merely discloses disabling a control look up table in response to dropping echo signal (col. 14, lines 27-42), in contrast to adjusting through a voltage regulator a power supply voltage level supplied to the graphics controller in response to receiving the change indication related to the system power supply, as recited in amended claim 1. As such, Jacobs, similarly to Parrish fails to disclose such limitations of amended claim 1.

Thus, neither Parrish, nor Jacobs teaches, or suggests such limitations of amended claim

1.

Furthermore, even if Parrish and Jacobs were combined, such a combination would lack adjusting through a voltage regulator a power supply voltage level supplied to the graphics controller in response to receiving the change indication related to the system power supply, as recited in amended claim 1.

Therefore, it is respectfully submitted that claim 1 is not obvious under 35 U.S.C. § 103(a) over Parrish in view of Jacobs.

Given that claims 4, 5, and 12 depends from amended claim 1, and add additional limitations, applicants respectfully submit that claims 4, 5, and 12 are likewise not obvious under 35 U.S.C. § 103(a) over Parrish in view of Jacobs.

Claims 6, 7, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Parrish in view of Powell.

As set forth above, Parrish fails to disclose adjusting through a voltage regulator a power supply voltage level supplied to the graphics controller in response to receiving the change indication related to the system power supply, as recited in amended claim 1.

Powell merely discloses reducing a display brightness (col. 4, lines 1-8), in contrast to adjusting through a voltage regulator a power supply voltage level supplied to the graphics controller in response to receiving the change indication related to the system power supply, as recited in amended claim 1. As such, Powell, similar to Parrish, fails to disclose, teach, or suggest such limitations of amended claim 1.

Furthermore, even if Parrish and Powell were combined, such a combination would lack adjusting through a voltage regulator a power supply voltage level supplied to the graphics controller in response to receiving the change indication related to the system power supply, as recited in amended claim 1.

Therefore, it is respectfully submitted that claim 1 is not obvious under 35 U.S.C. § 103(a) over Parrish in view of Powell.

Because claim 15 contains at least the limitations as discussed above with respect to amended claim 1, Applicants respectfully submit that claim 15 is likewise not obvious under 35 U.S.C. § 103(a) over Parrish in view of Powell.

Given that claims 6, 7, 16 and 17 depend, directly or indirectly, from respective amended claims 1 and 15, and add additional limitations, Applicants respectfully submit that claims 6, 7, 16 and 17 are likewise not obvious under 35 U.S.C. § 103 (a) over Parrish in view of Powell.

Claims 20-22 and 36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Parrish in view of U.S. Patent No. 5,524,249 of Suboh ("Suboh").

As set forth above, Parrish fails to disclose adjusting through a voltage regulator a power supply voltage level supplied to the graphics controller in response to receiving the change indication related to the system power supply, as recited in amended claim 15.

Suboh merely discloses that in response to the user inactivity, a video subsystem disables a pixel clock and reduces the frequency of the memory clock (col. 3, line 42- col. 4, line 65) in contrast to adjusting through a voltage regulator a power supply voltage level supplied to the graphics controller in response to receiving the change indication related to the system power supply, as recited in amended claim 1. As such, Suboh, similarly to Parrish, fails to disclose, teach, or suggest such limitations of amended claim 15.

Thus, neither Suboh, nor Parrish teaches, or suggests such limitations of amended claim 15.

Furthermore, even if Parrish and Suboh were combined, such a combination would lack adjusting through a voltage regulator a power supply voltage level supplied to the graphics controller in response to receiving the change indication related to the system power supply, as recited in amended claim 15.

Therefore, it is respectfully submitted that claim 15 is not obvious under 35 U.S.C. § 103(a) over Parrish in view of Suboh.

Given that claims 20-22 depend, directly or indirectly, from amended claim 15, and add additional limitations, applicants respectfully submit that claims 20-22 are likewise not obvious under 35 U.S.C. § 103(a) over Parrish in view of Suboh.

Because claim 36 contains at least the limitations as discussed above with respect to amended claims 1 and 15, applicants respectfully submit that claim 36 is likewise not obvious under 35 U.S.C. § 103(a) over Parrish in view of Suboh.

Claims 23-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parrish, in view of Powell, Jacobs, and Suboh.

Amended claim 23 includes a power supply input configured to receive power at a range of voltages from a voltage regulator. A power supply control output is to provide a trigger signal to the voltage regulator to change a voltage level supplied to the graphics controller through the power supply input when a change indication related to a system power supply is detected. A system power supply change input is coupled to a first clock output and to the power supply control output to detect the change indication related to the system power supply.

As set forth above, neither Parrish, Powell, Jacobs, nor Suboh discloses a power supply input configured to receive power at a range of voltages from a voltage regulator, as recited in amended claim 23. Additionally, neither Parrish, Powell, Jacobs, nor Suboh discloses a power supply control output to provide a trigger signal to the voltage regulator to change a voltage level supplied to the graphics controller through the power supply input when a change indication related to a system power supply is detected, as recited in amended claim 23.

Thus, neither Parrish, Powell, Jacobs, nor Suboh teaches, or suggests such limitations of amended claim 23.

Furthermore, even if neither Parrish, Powell, Jacobs, and Suboh were combined, such a combination would lack a power supply input configured to receive power at a range of voltages from a voltage regulator, as recited in amended claim 23. Additionally, such a combination would lack a power supply control output to provide a trigger signal to the voltage regulator to change a voltage level supplied to the graphics controller through the power supply input when a change indication related to a system power supply is detected, as recited in amended claim 23.

Therefore, it is respectfully submitted that claim 23 is not obvious under 35 U.S.C. § 103(a) over Parrish, in view of Powell, Jacobs, and Suboh.

Given that claims 24-34 depend, directly or indirectly, from amended claim 23, and add additional limitations, applicants respectfully submit that claims 24-34 are likewise not obvious under 35 U.S.C. § 103(a) over Parrish, in view of Powell, Jacobs, and Suboh.

Because claim 35 contains at least the limitations as discussed above with respect to amended claim 23, applicants respectfully submit that claim 35 is likewise not obvious under 35 U.S.C. § 103(a) over Parrish, in view of Powell, Jacobs, and Suboh.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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